

REMARKS**INTRODUCTION:**

In accordance with the foregoing, claims 1-8 have been cancelled without prejudice or disclaimer, claims 9-21 and 34-35 have been amended, and new claims 36-39 have been added. No new matter is being presented, and approval and entry are respectfully requested.

Claims 9-26, 28-32, and 34-39 are pending and under consideration. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §103

A. In the Office Action, at page 2, item 7, the Examiner rejected claims 1, 3-9, 11-16-21, 23-26 and 28-35 under 35 U.S.C. §103(a) as being unpatentable over Lorimor et al. (U.S. Patent No. 6,284,337; hereafter, Lorimor et al.) in view of Hirao et al. (U.S. Patent No. 5,800,950; hereafter, Hirao et al.), and further in view of USPN 6,124,970 to Karassev et al. (hereafter, Karassev et al.). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicants traverse this rejection and respectfully request reconsideration. See below.

B. In the Office Action, at page 5, item 9, the Examiner rejected claims 2, 10, and 22 under 35 U.S.C. §103(a) as being unpatentable over Lorimor et al. (U.S. Patent No. 6,284,337) in view of Hirao et al. (U.S. Patent No. 5,800,950) and further in view of Karassev et al. (U.S. Patent No. 6,124,970) and further in view of Kijima et al. (JP 03118198). The reasons for the rejection are set forth in the Office Action and therefore not repeated. Applicants traverse this rejection and respectfully request reconsideration.

In response to **A** and **B** above, claims 1-8 have been cancelled without prejudice or disclaimer. Claims 9-20 and 34 have been amended.

The amended claims recite a "member imparting a forgery-preventing characteristic," a "credit card," a "security," and a "certificate." That is, the amended claims do not claim the invention of "lamine composite" and/or an "information recording medium."

The amended independent claims recite that "chains of the liquid crystalline polymer material are orientationally arranged in a single direction substantially parallel to a major surface of the (patterned) latent image formation layer." Therefore, the "liquid crystalline polymer" in each amended independent claim does not include cholesteric liquid crystalline polymer, but includes a nematic or smectic liquid crystalline polymer.

On page 2, the last paragraph of the Office Action, the Examiner states "Lorimor's laminate comprises an emblem layer with liquid crystal polymers or pearlescent pigments such as titania. The reason Lorimor includes a liquid crystalline polymer is to change colors with the viewing angle." This statement is correct. That is, in Lorimor's laminate, the liquid crystalline polymer included in the emblem layer is not a nematic or smectic crystalline polymer, but a cholesteric liquid crystalline polymer.

On page 3, lines 9-10 of the Office Action, the Examiner stated that Hirao teaches a recording element that is laminated and has the polymer, which is capable of forming a liquid crystal phase having a nematic or smectic molecular configuration." This statement is correct.

On page 3, lines 10-15 of the Office Action, the Examiner stated "It would have been obvious to one of ordinary skill in the art to modify the laminate of Lorimor to include liquid crystals arranged nematically, cholesterically, or smectically as the instant claims require because Hirao teach such arrangements are conventional for liquid crystals as shown in Figures 9 and 10 for the purpose of providing optical ionization as taught by Hirao at col. 20, lines 1-30." This statement is incorrect, as described below.

First, the recording element of Hirao et al. is a "recording medium for mass storage." Hirao et al. does not mention a "member imparting forgery-preventing characteristic," a "credit card," a "security," and/or a "certificate." That is, the disclosure of Hirao et al. is unrelated to the present invention.

Second, in the "durable security laminate" of Lorimor et al., "providing optical ionization" does not have a technical significance. That is, the "durable security laminate" does not motivate the combination of Lorimor et al. and Hirao et al.

Therefore, it is respectfully submitted that the Examiner's statement on page 3, lines 10-15, of the Office Action is incorrect.

On page 3, lines 18-21, of the Office Action, the Examiner stated neither "Lorimor nor Hirao teach visualizing the laminated film close to a polarizer to visualize the latent image imparting forgery-preventing characteristics as per the instant claims 1, 9, 21 and 33-35." This statement is correct.

On page 3, lines 18-21, of the Office Action, the Examiner stated "Karashev discovered viewing a liquid crystal polymeric film having different amorphous and crystallinity degrees between polarizers is an innovative method for verifying genuineness of documents to ultimately prevent forgery (col. 4, lines 16-30)." This statement is incorrect, as explained below.

In col. 4, lines 15-30, Karashev et al. does not mention "liquid crystal polymeric film." Karashev et al. excludes "liquid crystal polymeric film" by the descriptions "Unlike the liquid-

crystal-based technology of the aforementioned prior art, it is a particular feature of the present invention that the latent image is formed within a single, otherwise substantially uniform, layer of polymer material" (col. 4, lines 52-55) and "As a result, and in contrast to liquid crystal based structures, regions 12 and areas 14 are typically indistinguishable when viewed under unpolarized or polarized illumination, and even when viewed obliquely." (col. 5, lines 26-29), for example.

On page 4, lines 2-6, of the Office Action, the Examiner concluded "It would have been obvious to one of ordinary skill in the art to modify the combination of Lorimor and Hirao to visualize the laminate of Lorimor and Hirao with a polarizer for prevention because Karashev teaches viewing a liquid crystal polymeric film between polarizers is an innovative method for verifying genuineness of documents to ultimately prevent forgery (col. 4, lines 15-30 and col. 5, lines 1-30 of Karashev)." As mentioned above, the Examiner's statements on page 3, lines 10-15 and page 3, lines 18-21 of the Office Action are incorrect. Thus, this conclusion is clearly incorrect.

As is clear from the above explanations, the Examiner's conclusions regarding each independent claim of the present application are submitted to be incorrect. Therefore, all of the claims of the present invention are submitted to be non-obvious with respect to the cited art.

As noted in the previous response, Lorimor et al. (USPN 6,284,337) discloses a security laminate 26 comprising an emblem layer 14. Lorimor et al. describes the liquid crystal polymer as a material of the emblem 14 by way of example. As is clear from the description in column 5, lines 8-50, this liquid crystal polymer is an example of materials which are visible to the unaided eye. That is, Lorimor et al. does not disclose a structure wherein "said laminated composite is configured to visualize the latent image by arranging a polarizing member at an observer side close to the latent image formation layer," as is set forth in the independent claims 9, 21, 33, 34 and 35.

In addition, as previously pointed out by Applicants, Hirao et al. (USPN 5,800,950) merely discloses the liquid crystal compounds. That is, Hirao et al. does not disclose a structure wherein "said laminated composite is configured to visualize the latent image by arranging a polarizing member at an observer side close to the latent image formation layer."

It is respectfully submitted that the Examiner's characterization of Karashev et al. fails to note that Karashev et al. does not utilize a liquid crystalline polymer material, as is utilized by the present claimed invention. In particular, in col. 4, lines 52-55, Karashev et al. states: "Unlike the liquid-crystal-based technology of the aforementioned prior art, it is a particular feature of the present invention that the latent image is formed within a single, otherwise substantially uniform layer of polymer material." In contrast, independent claims 9, 21, 33, 34 and 35 of the present

invention recite "liquid crystalline polymer material." Clearly, Karashev et al. does not teach or suggest using the "liquid crystalline polymer material" of the present invention, but instead teaches away from the present invention.

Thus, as described above, Lorimor et al., Hirao et al., and Karashev et al., alone or in combination, do not disclose using a structure wherein "said laminated composite is configured to visualize the latent image by arranging a polarizing member at an observer side close to the latent image formation layer," wherein a liquid crystalline polymer material is utilized in a latent image formation layer, as is recited in independent claims 9, 21, 33, 34 and 35. Therefore, it is respectfully submitted that independent claims 9, 21, 33, 34 and 35 are not taught or suggested by Lorimor et al, Hirao et al., and/or Karashev et al., alone or in combination, and are nonobvious and patentable under 35 U.S.C. §103(a) over Lorimor et al, Hirao et al., and/or Karashev et al., alone or in combination.

Since claims 11-20, 23-26, and 28-32 depend from independent claims 9, and 21, respectively, claims 11-20, 23-26 and 28-32 are submitted to be nonobvious and patentable under 35 U.S.C. §103(a) over Lorimor et al, Hirao et al., and/or Karashev et al., alone or in combination, for at least the reasons that claims 9 and 21 are submitted to be nonobvious and patentable under 35 U.S.C. §103(a) over Lorimor et al, Hirao et al., and/or Karashev et al., alone or in combination.

As noted above, independent claims 9, and 21 are submitted to be nonobvious and patentable under 35 U.S.C. §103(a) over Lorimor et al, Hirao et al., alone or in combination.

Kijima et al. (JP 03118198) merely discloses in the Abstract that a metal reflecting layer 3, a polymer liquid crystal layer 4 and a polarizing film 5 are successively laminated to a card base material 2. That is, Kijima et al. does not disclose a structure wherein "said laminated composite is configured to visualize the latent image by arranging a polarizing member at an observer side close to the latent image formation layer," as is recited in independent claims 9 and 21.

Thus, independent claims 9 and 21 are submitted to be nonobvious and patentable under 35 U.S.C. §103(a) over Kijima et al. Hence, independent claims 9 and 21 are submitted to be nonobvious and patentable under 35 U.S.C. §103(a) over Lorimor et al, Hirao et al., and/or Kijima et al., alone or in combination.

Since claims 10 and 22 depend from independent claims 9, and 21, respectively, claims 10 and 22 are submitted to be nonobvious and patentable under 35 U.S.C. §103(a) over Lorimor et al, Hirao et al., and/or Kijima et al., alone or in combination, for at least the reasons that independent claims 9 and 21 are submitted to be nonobvious and patentable under 35 U.S.C.

§103(a) over Lorimor et al, Hirao et al., and/or Kijima et al., alone or in combination.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date:

December 22, 2004

By:

Darleen J. Stockley
Darleen J. Stockley
Registration No. 34,257

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501